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ABSTRACT

The Alternative Certification Program (ACP) was implemented to reduce staffing shortages and to develop an alternative training program capable of producing teachers who are equal to or superior to teachers trained by traditional methods. This evaluating examines the effectiveness of the Houston (Texas) District's training program by comparing the achievement of students taught by ACP interns with the student achievement of inexperienced and experienced teachers who were trained in traditional teacher training programs. In addition, this evaluation examines the effectiveness of the ACP staff and the support given to interns by school personnel. Survey results generally indicate that the students of ACP interns achieve as well as the students of teachers who are trained through conventional university programs, and interns perceive a high level of support from the administrators. (Author)

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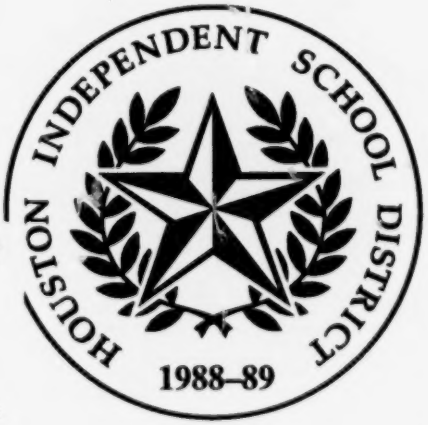
Alternative Certification Program
1988–1989



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SP032401

AN EVALUATION OF HISD'S ALTERNATIVE CERTIFICATION PROGRAM

FOR THE ACADEMIC YEAR: 1988-1989

The Alternative Certification Program (ACP) was implemented to reduce staffing shortages and to develop an alternative training program capable of producing teachers who are equal to or superior to teachers trained by traditional methods. This evaluation examines the effectiveness of the District's training program by comparing the achievement of students taught by ACP interns with the student achievement of inexperienced and experienced teachers who were trained in traditional teacher training programs. In addition, this evaluation examines the effectiveness of the ACP staff and the support given to interns by school personnel. Survey results generally indicate that the students of ACP interns achieve as well as the students of teachers who are trained through conventional university programs, and interns perceive a high level of support from the administrators.

The Alternative Certification Program (ACP) was implemented in the Houston Independent School District (HISD) in 1985 in accordance with the provisions of House Bill 72, which states: "The State Board of Education by rule shall provide for the certification of persons who are not graduates of teacher education programs." The District's ACP has two objectives: (a) to fill teacher shortages, and (b) to provide an alternative training program for teachers.

This evaluation study of the ACP poses four evaluation questions:

- What are the demographic characteristics of ACP interns, first year certified teachers, and experienced teachers?
- How many 1988–89 teacher vacancies were filled through the ACP?
- Is there a difference between the academic achievement of those students taught by ACP interns and those students taught by teachers trained via traditional methods?
- Do ACP interns feel that they are adequately supported by the school setting, the administrative staff, the training sessions, and the course presenters?

PROGRAM DESCRIPTION

The ACP is a teacher training program that provides for a one year internship. A hiring cycle is defined as a group of interns hired during a specific year. For example, interns hired in 1985 are designated as Cycle 1, and a new cycle begins every year. The ACP integrates on-the-job training with District-developed training modules. If successful, the intern is then recommended to the state for certification. Currently, the ACP certifies teachers in Bilingual Education (pre-K through grade 6), Elementary Education (pre-K through grade 6), and English as a Second Language (pre-K through grade 6). The eligibility requirements for the program are slightly different depending on the instructional area the intern chooses to enter. All interns accepted to the program are required to have at least a bachelors degree, with a grade point average (GPA) of 2.5 or better based on a 4.0 scale. All applicants are required to take and pass either the *Functional Academic Skills Tests* (FAST) or the *Texas Academic Skills Program* (TASP). These tests are used as a quality control mechanism in maintaining minimum standards of academic competency.

Since its inception in 1985, the ACP has admitted 712 interns. Of those, 662 are still active in HISD. For the 1988–89 school year, the ACP budget was $464,685.00. This budget finances administrative cost[illegible]not teacher salaries. The administrative cost per intern is around $2,300.

RELATED LITERATURE

The question of whether or not traditional teacher training programs produce better qualified teachers as compared to alternative programs is for the most part unresolved. There is ample support for both sides of the argument. Research studies investigating the influence that different types of training programs have on teacher effectiveness were summarized in the 1969 edition of the *Encyclopedia of Educational Research,* which discussed several studies conducted in the early 1960's. The major studies since then are those published by Popham, 1971; Bausell and Moody, 1972; Cornett, 1984, p. 133; Goebel, 1987; Wright, 1987.

EVALUATION 1988–89

The most critical evaluation objective is to determine how students of ACP interns perform on standardized achievement tests when compared to students of teachers who are trained via traditional methods; however, producing a meaningful evaluation of the ACP is contingent upon finding suitable student/teacher groups for analysis.

METHOD

Sample

A total of 177 ACP interns were considered acceptable for inclusion in the current evaluation. Two comparison groups of teachers were formed: one containing 192 experienced teachers (EXP) and the other containing 158 first year certified teachers (FYC).

Those interns not included in this study were omitted for one of two possible reasons: they taught students for whom there were no suitable dependent variable measures, or they were given instructional assignments in instructional categories where there were too few interns to represent a sample large enough for meaningful statistical analyses.

Procedure

A comparison was made of the MAT-6 achievement results for students of the ACP interns, FYC teachers, and EXP teachers. The evaluation goal was to determine whether or not the students of ACP interns achieve as well as students who are taught by FYC and EXP teachers. This determination was accomplished through an analysis of covariance (ANCOVA).

This evaluation assumes that both teacher training and experience influence student achievement. Therefore, ACP interns at the elementary level were divided into two analytical categories: (1) those interns who were hired in the first, second, third, and fourth hiring cycles, and (2) those interns who were hired in the fifth, sixth, and seventh hiring cycles. Those interns in the first category have considerably more teaching experience than those in the latter category.

Students were matched with their respective teachers and class averages were then taken. Next, teachers were matched with their respective teacher groups and then group averages were determined. The metric variable percent of students receiving free lunch (%FL) was used to measure the socio-economic status of students, and the percent of white students (%W) was used as a measure of ethnicity.

Statistics

Analysis of covariance (ANCOVA) is a statistical procedure whereby the researcher introduces one or more variables into the analysis for the sole purpose of control. When the researcher would like to compare two or more groups on a dependent variable while controlling one or more relevant variables, ANCOVA is the proper procedure (Davis and Cosenza, 1985, p. 395).

For the present evaluation, the class characteristics for each ACP intern and HISD teacher included in this evaluation were described in terms of the percent of white students in each class, the percent of students receiving free lunch, and the class MAT-6 mean achievement scores. The specific unit of analysis was the *class* that the teacher instructed and not the individual student. In order to facilitate statistical analyses and explore the effects of experience, some grouping of ACP interns at the elementary levels were done to maintain large enough samples to conduct meaningful analyses. Specifically, ACP interns from Cycles 1, 2, 3, and 4 formed one group; interns from Cycles 5, 6, and 7 formed another.

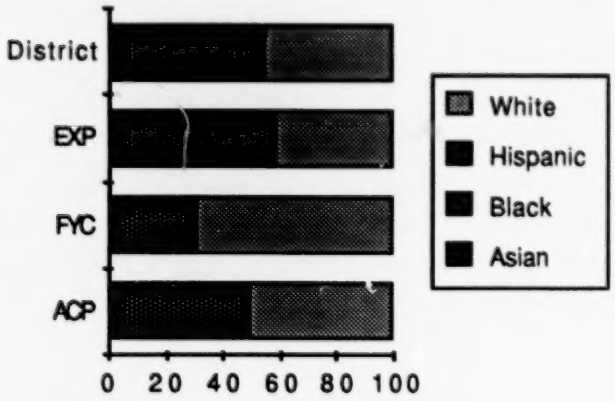
The ANCOVA factor was the teacher group and the covariates were percent of white students in each class and the percent of students in each class receiving free lunch assistance. The dependent variable was the MAT-6 (composite normal curve equivalent). Analyses were conducted at the elementary level only.

RESULTS

EVALUATION QUESTION 1

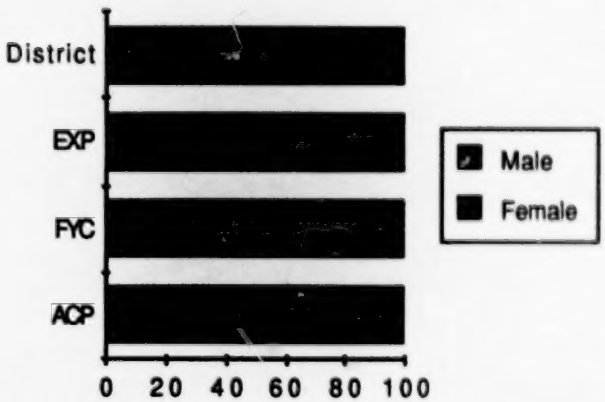
What are the demographic characteristics of the sample of ACP interns, FYC teachers, and EXP teachers?

Percentage of Teacher Groups By Race



When comparing ethnic characteristics by teacher group, it becomes apparent that the only difference was that the FYC teacher group had fewer blacks. Otherwise, all groups were basically comparable. Hispanic teachers represent such a small sample of teachers that they are not clearly identified on the graph.

Percentage Of Teacher Groups By Gender



When viewing teacher groups by gender, the only noticeable difference was that the ACP brings a greater number of males into the teaching field.

EVALUATION QUESTION 2

How many 1988–89 teacher vacancies were filled through the ACP?

According to the HISD Personnel Department, before starting the 1988–1989 school year HISD had an estimated 700 teaching vacancies. The ACP filled 208 instructional vacancies with interns or 29 percent of the total instructional vacancies for that year. The remaining vacancies were filled by traditional sources. Currently, the ACP has recruited 216 interns for the 1989–90 school year.

EVALUATION QUESTION 3

Is there a difference between the academic achievement of those students taught by ACP interns and those students taught by teachers trained via traditional methods?

Table 1 shows the results of the elementary ANCOVA analysis. The ACP interns were divided into two distinct groups on the assumption that teacher experience effects student achievement. Therefore, the interns hired in Cycles 1, 2, 3, and 4 composed one analytical group and the interns hired in Cycles 5, 6, and 7 comprised the other. The means reported in Table 1 are *means of class means*. The unit of analysis is the class and not the individual student.

Table 1

Elementary Analysis ANCOVA of Metric and Non-Metric Variables

Teacher Group	Number in Group	MAT-6 Complete Battery
ACP (Cycles 1,2,3,4)	33	56.26
ACP (Cycles 5,6,7)	144	52.37
FYC	158	48.50
EXP	192	55.42

Significance (P<.001)
Independent variable: Teacher Group

Dependent variable: 1989 MAT-6 Complete Battery
Group Mean NCE, adjusted for covariate effects.

The ANCOVA results show that there are significant differences (P<.001) between the four teacher groups in student achievement at the classroom level. Table 1 reveals that the achievement

of students assigned to EXP teachers and ACP interns with experience is slightly greater than the achievement of students assigned to FYC teachers and ACP interns with little or no experience.

This finding does not mean, however, that the grouping factor is responsible for these observed differences in achievement. An omega squared analysis of the results indicate that teachers account for only 4 percent of the between-group variance.* Furthermore, when taking into account the effects of the covariates, 41 percent of the variance is now accounted for by the model. Combined, the effects of the factors (teacher groups) and the covariates (ethnic and SES variables) accounted for 45 percent of the total variance in student achievement scores.

DISCUSSION OF ANCOVA

The findings of this report suggest that the students of ACP interns perform as well on achievement tests as students taught by the other teacher groups. These findings are consistent with previous District reports (Goebel, 1985, 1986, 1987). This report provides additional statistical evidence that the teacher grouping factor accounts very little of the MAT-6 between-group variance.

A number of issues concerning the appropriateness of the ANCOVA model were not explored. These issues pertain to the normality of the error term, equality of error variances for different teacher groups, equality of regression slopes for different teacher groups, and the linearity of the regression. Furthermore, the absence of random sampling of the FYC teachers and the ACP interns limits the generalizations that can be applied to the findings. Another problem was having to collapse scores across grades to maintain sufficient sample sizes. This occurred mainly in respect to ACP interns for Cycles 1, 2, 3, and 4. Of all the limitations of this study, the most serious one is that of trying to evaluate teachers with an instrument designed specifically to evaluate student achievement (the MAT-6). The MAT-6 achievement test was designed to measure individual student performance and not the performance of teachers.

Although the results of this study are consistent with previous evaluations, the model accounts for slightly more of the between-group variance. The combined effects of the covariates and factors accounted for 45 percent of the variation in 1989 MAT-6 test scores, compared to last year when they accounted for nearly 40 percent. In interpreting this variation, a significant difference in this evaluation as opposed to last year's is the sample size. The total sample used this year consisted of 527 cases compared to last year which consisted of only 253 cases.

*The omega squared statistic is a method for estimating the strength of associations between the independent and dependent variable elements in a multivariate statistical model; it is similar to a correlation coefficient. There are a variety of ways for doing this and each has its respective limitations, but this approach has as much to offer as any of the others. For a detailed review, see Hayes, William L. *Statistics for the Social Sciences*. New York: Holt, Rinehart and Winston, Incorporated; pages 417 and 485-487.

EVALUATION QUESTION 4

Do ACP interns feel that they are adequately supported by the school setting, the administrative staff, the training sessions, and the course presenters?

To obtain a measure of the impact of the ACP from the intern's perspective, a survey instrument was developed by the ACP Department. Surveys were individually distributed to a total of 208 Cycle 7 interns. Anonymous responses were received from 178 ACP interns (86% response rate). The survey instrument was designed specifically to collect information about: (a) the interactive school setting, (b) the administrative staff, (c) training sessions, and (d) the presenters.

School Setting

- Eighty-eight percent of the interns responding reported they felt welcome and comfortable at their schools.
- Seventy-seven percent reported that their supervising teacher had an interest in the quality of teaching the interns were providing students.
- Seventy-six percent reported that their supervising teacher had offered ideas for improvement.
- Sixty-nine percent stated that their supervising teacher had initiated communication regarding assistance.
- Eighty-three percent reported having felt extremely well supported by their principal.
- Sixty-eight percent reported they felt comfortable in asking assistance from the principal.

Administrative Staff

- Ninety-six percent of the interns responding reported that the ACP staff was supportive and helpful.
- Ninety-three percent reported that program supervisors were interested and concerned about the quality of teaching services provided by them.
- Eighty-nine percent reported positively about the ability of the program supervisors to communicate ideas for improvement.
- Ninety-seven percent reported they would recommend the ACP to a friend.

Training Sessions

- Ninety percent of the interns responding reported that the training sessions were an effective tool in helping to meet their entry level requirements.
- Ninety percent reported that they had learned very much about the teaching profession.
- Eighty-eight percent reported that the handouts were a valuable tool in supplying relevant and helpful information for meeting the needs of beginning teachers.

Presenters

- Ninety-two percent of those surveyed felt the presenters were very helpful in the training sessions.
- Ninety-two percent reported that the presenters were conscientious in making sure they understood the subject matter.
- Eighty-nine percent reported that the presenters presented their information in a clear, concise, and meaningful manner.
- Ninety-four percent reported that the presenters were well-informed about the subject matter.

General Conclusions

What are the demographic characteristics of ACP interns, first year certified teachers, and experienced teachers?

- The ethnic distribution of teachers is equally represented by both blacks (45%) and whites (45%) with a minority position being held by Hispanics and Asians. The only exception is that of FYC teachers with only about 25% black and 70% white.

- Most teachers in the District's elementary grades are female.

How effective is the ACP in filling teacher vacancies?

- The ACP filled 208 positions in 1988–1989.

- Since its inception the ACP has provided HISD with 662 teachers.

Is there a difference between the academic achievement of those students taught by ACP interns and those students taught by teachers trained via traditional methods?

- Yes; however, only 4 percent of the variance in student achievement as measured by the MAT-6 test is attributable to teachers. Meaning that very little of the academic success of the student can be explained by the teacher.

Are the school settings, the administrative staff, the training sessions, and course presenters providing interns with the resources and instruction needed to carry out their assignments?

- Yes, they are all providing the instruction and materials required for the interns to effectively teach.

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